

Educational Program Effectiveness for Carers Affected by Burnout at Geriatric Institutions

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Abstract

Introduction: Burnout syndrome (BOS) or burnout is related to the progressive loss of energy, lack of motivation, and mental, emotional and physical exhaustion. The objective of the present study was to identify the effectiveness of an educational intervention aimed at caregivers with different levels of burnout caring for institutionalized elderly individuals.

Materials and Methods: This quasi-experimental, single group pretest–posttest study included 18 caregivers from 5 nursing homes in which burnout level was measured using the Burnout Syndrome Evaluation Questionnaire (i.e., CESQT), data collection took place in September to November 2018 and January to February 2019 and the educational intervention and the process evaluation which took place in March to October 2019.

Results: After concluding the participation in the educational intervention, most caregivers reported very low-to-medium levels, with only 2 (11.1%) reporting high burnout levels.

Conclusion: BOS occurs in caregivers of institutionalized elderly adults, particularly in medium-to-severe burnout. Educational interventions are important for burnout prevention; however, other determining factors should also be considered.

Keywords: Education; Effectiveness; Burnout; Caregivers; Homes for the Aged; Geriatric Nursing

Introduction

According to Gil-Monte, as quoted by Muñoz and Velásquez [1] Maslach's definition of the burnout syndrome (BOS) is that this is a "syndrome of emotional exhaustion, depersonalization and lack of personal fulfillment at work, which can develop in those people whose object of work are people in any type of activity" and it develops when there are high levels of physical and emotional exhaustion, accompanied by attitudes such as low enthusiasm for the work performed, attitudes of coldness and indifference towards the work team and users. It is considered an interpersonal and emotional syndrome and the most vulnerable professionals are those who have long-lasting and intense human interactions [2]. From a psychosocial perspective, BOS is conceived as a response to sources of chronic stress at the workplace, which are related with the social relationships between human service providers and the recipients of such services; it is a self-defensive coping mechanism against the stress caused by these types of relationships [3].

Rodríguez-Gómez [4] suggests that BOS is a response mechanism to a routine activity, which triggers a series of general signs and symptoms that can vary from one individual to other. In addition, three dimensions have been identified: emotional exhaustion, depersonalization, and a diminished sense of personal accomplishment. In the first dimension, the worker experiences a progressive loss of energy and fatigue, among other symptoms. In the second dimension, the worker experiences negative feelings and attitudes, such as irritability and inappropriate responses, as a self-defensive coping mechanism against disappointment and exhaustion. The third dimension refers to a decrease in the worker's level of self-concept, which could be expressed as mistrust, insufficiency, and inadequacy of their own abilities. Consequently, individuals affected by BOS generate negative responses toward their work and themselves.

The International Labor Organization [5] portrays the problematic situation of work-related stress in Central and South America. In Colombia, according to a study carried out by Gutiérrez-Lesmes, Lobo-Rodríguez and Martínez-Torres, it was found that the prevalence of Burnout syndrome in the nurses surveyed was 16%, where 42% of the nurses who worked in hospital care, presented a high emotional fatigue, 38% a high depersonalization and a high lack of personal fulfillment with 30% [6].

As previously mentioned, BOS mainly occurs in professionals who perform tasks that involve caregiving for other individuals. Therefore, it is necessary to address this issue because it can also entail serious consequences for the health and well-being of the recipients of such care. For example, León and Nazate [7] report that within the labor consequences of people with burnout syndrome are: a decrease in the quality of services and work capacity, as well as an increase in deficient communications and hostile interactions in the provision of services to people subject to care. No previous studies have focused on this syndrome among caregivers of institutionalized aged adults because most of these investigations focus on family caregivers. In addition, information regarding the effectiveness of educational preventive interventions is scarce.

Therefore, a timely identification of the impact of BOS on caregivers of institutionalized elderly individuals along with a timely intervention becomes necessary to ensure that preventive actions can be taken for reducing the risk or preventing the onset of BOS. Educational interventions aimed at developing aptitudes in caregivers associated with the practice of relaxing and respiratory exercises and regular physical activity as well as the development of social skills [8,9] are among the most appropriate measures that should be undertaken in such cases for establishing the effectiveness of this type of educational interventions.

Objective of the Study

The objective of this study is to identify the effectiveness of an educational intervention aimed at caregivers with different burnout levels caring for institutionalized elderly adults and working in nursing homes in the municipality of Bucaramanga, Colombia. Likewise, the hypotheses of this research were defined thus, in H0 it was established that the level of burnout after the educational intervention was not lower than the initial burnout level and H1 was delimited thus, that the level of burnout after the intervention educational level was lower than the initial burnout level.

Materials and Methods

Design

This is a quasi-experimental, single group pretest–posttest study [10], in which burnout levels were measured before and after the educational intervention using the Burnout Syndrome Evaluation Questionnaire (CESQT, which is its Spanish acronym) [11,12]. This type of study allows for the establishment of cause-effect relationships, although there is no random allocation [10].

Sample

Initially, 38 caregivers from seven nursing homes were contacted, who constituted the universe of possible participants, of which 20 withdrew for the following reasons: complete completion of the entire educational process and due to retirement from work. Finally, the sample of study included 18 caregivers working in 5 nursing homes, who were selected via a purposive non-probability sampling [13]. The method was a convenience sampling included the individuals who happened to be most accessible to research.

All of them met the inclusion criteria, which were being of legal age and maintaining an employment relationship with the institution in their capacity as caregivers. The only exclusion criterion was the presence of any psychological or physical condition that could prevent them from autonomously and consciously answering the questionnaires. Participation was voluntary and the informed consent was signed by each participant, as well as the endorsement of the legal representative of each of the institutions included in the study. The project was approved by the Ethics Committee of Universidad Cooperativa de Colombia according to act 007 of September 3rd, 2018. The questionnaire was self-administered by each caregiver with whom a personal contact was established to provide them with the guidelines for responding to the CESQT and to the sociodemographic and employment data questionnaire in a private and quiet environment, data collection was carried out in the months of September to November 2018 and from January to February 2019.

Educational intervention

The educational intervention proposed was associated with the concept of education for health, which is considered a learning opportunity offered to individuals to ensure that they can make decisions for the sake of their own health and the environment in which they live, among other aspects. These interventions are aimed at improving, reinforcing, and adopting healthy habits as well as changing unsafe behaviors [14]. The educational intervention included 7 face-to-face individual sessions of 1h each and a 2-h group session, which were developed together with the evaluation process in March to October 2019, these were all of which were conducted at the caregivers' workplace and within a schedule mutually agreed between the facilitator and participants. Additionally, printed and audiovisual educational material was designed under the title "A que te quemo cuidador, a que no, burnout ladrón" (Spanish-language title of a word game that refers to a tag game between the BOS and the caregiver), which helped to reinforce and remember key aspects of the learning process. To define the educational intervention, an initial evaluation of the participants' preferences was conducted, which is important for the success of the intervention [13].

The educational intervention lasted for 6 months and sought to develop the following skills and promote the following behaviors/abilities:

Caregivers should be able to

- Become aware of their current situation in relation to burnout;
- Outline a self-care plan for burnout prevention or management;
- Develop psychosocial skills in their role as caregivers and workers of an institution;
- Learn how to act in conditions that affect elderly adults' health as a way of helping them establish harmonious relationships with the person that is the subject of care.

Instrument

The Burnout Syndrome Evaluation Questionnaire (CESQT) was used to measure BOS [11,12]. The psychometric properties of this questionnaire have been assessed, and consistent results about its validity and reliability have been obtained according to the analysis

performed by health professionals on samples from Spain, Argentina, Mexico and Chile [15] and from Colombia [1]. According to Torregrosa [16] and Soto, Barrios and Molina [17] CESQT and its dimensions have reached Cronbach's alpha internal consistency values > 0.70 in all studies. Similarly, compared with other tools, it reportedly offers other advantages such as the following: a) it is based on a theoretical model prior to the psychometric model; b) although some dimensions are similar to the ones of the MBI-Human Services Survey, it adds guilt as a symptom, which facilitates the establishment of different profiles in the evolution of BOS and different burnout levels in the individuals [16].

It comprises 20 items structured into 4 dimensions: enthusiasm toward the job, psychological exhaustion, indolence, and guilt [11,16]. For diagnostic purposes, an individual is considered to have developed BOS when presenting high scores on the CESQT, except for the guilt scale. Considering that the dimensions of this tool are independent, i.e. the high scores in one dimension do not necessarily involve high scores in the others (which should be low in the case of enthusiasm toward the job), a serious case is that wherein the subject has low scores in enthusiasm toward the job, along with high scores in psychological exhaustion and indolence.

Additionally, besides the parameters included in the CESQT (sex and age), a questionnaire was prepared and used to collect data related to other sociodemographic and employment variables: marital status, socioeconomic status, level of education, number of children, head of household, training as a caregiver, type of continuing education, date of the last training as a caregiver, duration of their experience as caregivers, duration of their employment relationship, number of elderly adults assigned per shift, and number of hours per day devoted to the care of elderly adults.

Procedure

The following steps were taken to develop the study:

- Selecting and contacting the legal representatives of the nursing homes and the selected caregivers.
- Initial application of the CESQT via an individual meeting with each caregiver.
- Processing and analysis of the baseline data obtained.
- Development of the educational intervention "A que te quemo cuidador, a que no, burnout ladrón".
- Final application of the CESQT via an individual meeting with each caregiver.
- Data processing and analysis.
- Results and conclusions from the study.

Statistical analysis

For univariate analysis, measures of frequency were used in the sociodemographic variables, employment features, and burnout levels. To study the effectiveness of the educational intervention and to accept or reject the H_0 (that the burnout level after the educational intervention was not lower than the initial burnout level) or the H_1 (that the burnout level after the educational intervention was lower than the initial burnout level), non-parametric inferential statistics was applied through a Wilcoxon signed-rank test after checking the non-normal distribution [18] and considering a 95% confidence interval ($p = 0.05$). The CESQT results were compared before and after the intervention.

The statistical analysis was conducted using SPSS v.25 software, whose license was previously acquired by the Universidad Cooperativa de Colombia, Bucaramanga.

Results

Sociodemographic and employment features

Overall, 77.8% (14) of the study participants were women. The mean age was 39.3 years. Further, 38.9% of participants (7) were single, 38.9% (7) were in a common law marriage and 22.2% (4) were married. Furthermore, most participants belonged to socioeconomic strata 2 (33.3%; 6) and 3 (27.8%; 5). Regarding the level of education, 44.4% (8) were assistant technicians and 22.2% (4) attended primary school and compulsory secondary school, although only 11.1% (2) were graduates. In terms of familial status, 61.1% (11) have children and 61.1% are heads of their household (Table 1).

Category	f	%
Sex		
Female (n = 14)	14	77.8
Male (n = 4)	4	22.2
Marital status		
Single	7	38.9
Married	4	22.2
Common law marriage	7	38.9
Socioeconomic stratum		
1	3	16.7
2	6	33.3
3	5	27.8
4	4	22.2
Level of education		
Primary education	4	22.2
Secondary education	4	22.2
Technician or assistant	8	44.4
University degree	2	11.1
Children		
No	7	38.9
Yes	11	61.1
Head of household		
No	7	38.9
Yes	11	61.1

Table 1: Sociodemographic features of caregivers.

Source: Own elaboration.

Regarding the employment and educational profile as caregivers of elderly adults, 88.9% (16) of the participants received specific training for the job, although most have only accomplished short courses (66.7%; 12). The last training received in this field was < 6 months ago (50%; 9); in addition, 61.1% (11) of the respondents reported an experience as a caregiver of ≥ 5 years (Table 2). Additionally, 50% (9) of the participants reported an employment relationship with the institution where they are currently working of ≥ 5 years, and 22.2% (4) reported an employment relationship of < 12 months. Further, 72.2% (13) devoted between 9 and 12 h/day to the care tasks, whereas 5.6% (1) performed it for ≤ 8 h/day. Regarding the number of elderly adults assigned per shift, 66.7% (12) of the participants were in charge of > 10 elderly adults; only 1 (5.6%) caregiver reported caring for 2 - 5 elderly adults and 1 (5.6%) caregiver reported caring for only 1 elderly adult (Table 2).

		N	Average range	Sum of ranges
Burnout2 level- Burnout1 level	Negative ranges	9 ^a	6.39	57.5
	Positive ranges	3 ^b	6.83	30.5
	Draws	6 ^c		
	Total	18		

Table 3: Ranges.

^aBurnout2 level < Burnout level.

^bBurnout2 level > Burnout level.

^cBurnout2 level = Burnout level.

Source: Own elaboration.

Burnout levels before and after the educational intervention

The measurements obtained before and after the educational intervention that was conducted on the group of caregivers show changes in the burnout levels. Initially, most caregivers reported high (33.3%; 6) and medium (44.4%; 8) levels in CESQT; after concluding their participation in the educational intervention, most participants reported very low-to-medium levels, with only 2 (11.1%) reporting high burnout levels (Figure 1).

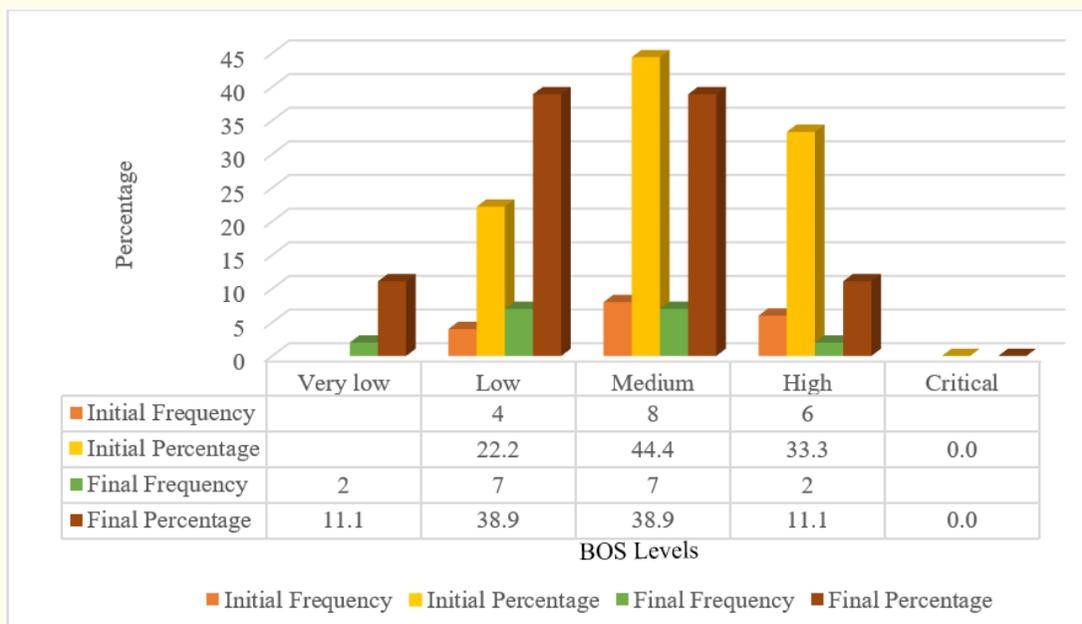


Figure 1: Changes in the burnout levels in the group of caregivers.

Source: own elaboration.

Furthermore, the above changes were individually identified for each caregiver (Figure 2).

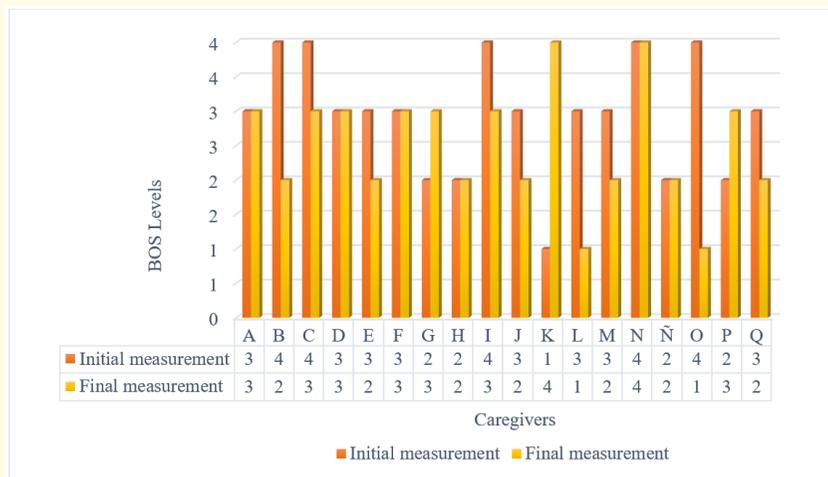


Figure 2: Individual changes in the burnout levels in caregivers.

Source: own elaboration.

A decrease in the burnout level was reported in 9 (50%) caregivers; however, no change was reported in 6 (33%) caregivers and an increase in CESQT result was observed for 3 (16.7%) caregivers.

However, on verifying the non-normal distribution of data, the differences in the CESQT results were measured using the Wilcoxon signed-rank test, where ranges were established (Table 3), obtaining a P = 0.133 with a 95% confidence interval ($\alpha = 0.05$). This leads to accepting the H_0 establishing that the burnout level after the educational intervention is not lower than the initial burnout level.

Discussion

We determined the changes in burnout levels in a sample of 18 caregivers of institutionalized elderly adults and assessed their sociodemographic and employment features. Caregivers initially reported medium and high burnout levels, which were consistent with the findings by Romero and Cuba [19] who reported a severe burden (75.27%) in most participants of their research.

Regarding effectiveness, the findings of the present study that the burnout level after the educational intervention was not significantly lower than the initial burnout level ($p = 0.133$) are different from those obtained in the study conducted by Marante and Pozo [20] who found changes in the level of the caregivers' burden after an educational intervention was conducted for 38 caregivers of institutionalized dependent elderly adults. However, it is important to note that both studies used different tools of measurements (CESQT vs. the Zarit's Scale). In addition, the educational approach aimed at caregivers was different; for example, the educational intervention of the present study lasted for 6 months and the one in the study by Marante and Pozo lasted for 14 months.

The results from this study can be explained based on the conclusions made by Crespo and Rivas [21] who stated that owing to the defining and dimensional complexity of the caregiver's burden, a general agreement on its conceptualization and measurement has not yet been achieved. However, there have been advancements with regard to the latter. For instance, in a recent study, Monreal-Bartolomé

and Prieto [22] used Rasch's model to compare the Spanish version of the Screen for Caregiver Burden (SCB)-a test designed to identify and assess caregivers with BOS who are caring for impaired elderly persons-and the Zarit Caregiver Burden Scale for the assessment of the psychometric properties and observed that the items in the former facilitated the identification of a broader set of burden symptoms.

Additionally, Kulakova, *et al.* [23] recommend the use of qualitative methods to discover the specific configuration of BOS, which is mediated by the sociocultural context. In the present study, only the quantitative approach was employed.

One of the aspects associated with the sociocultural context is the duration for which the individual was employed as a caregiver, which is a determining factor for burnout level [19,24] although this level was analyzed in the case of informal caregivers. However, the amount of daily hours devoted to caregiving has been identified as a factor related with caregivers' burden and BOS ($r = 0.442$, $p = 0.001$) [25]. Consistent with the above findings, the present study established that 50% (9) of the caregivers had been employed for ≥ 5 years and that 72.2% (13) devoted 9 - 12 h/day to caregiving tasks.

Study Limitations

The tool used (CESQT) in the present study only includes age and sex; and therefore, it was necessary to prepare an additional questionnaire to collect data on other sociodemographic and employment variables that were important to the study. Our study designed a questionnaire with some variables and a system to assess them. However, psychometric measurement may be necessary in the future to establish its validity and reproducibility. For this type of research that includes sociodemographic variables and a system to assess them, there exists no standardization, which is a limitation. In general, researchers establish the variables and system at their discretion and based on the interests of their study. Furthermore, only a quantitative approach was considered. Another limitation is pertaining to the small sample size as well as with the short duration of the educational intervention (6 months).

Practical applications

The results of the present study provide guidance on the urgent need to conduct interventions aimed at caregivers to reduce the risk of BOS or prevent its onset. This intervention would be mainly aimed at developing attitudes related to their self-care as well as with their abilities as caregivers of institutionalized elderly adults, which would lead to improve their overall competence as caregivers. All these objectives can be accomplished via educational interventions.

On the other hand, additional research is required in the context of caregivers of institutionalized elderly adults, which would contribute to expanding the knowledge on this field, particularly to establish the relationship between sociodemographic and labor variables and burnout levels in this type of caregivers.

Conclusion

This study identified the effectiveness of an educational intervention aimed at caregivers with different levels of burnout who care for institutionalized elderly. BOS affects caregivers of institutionalized elderly adults at medium-to-high levels. None of the caregivers reported that they did not experience this condition. Although the measurement of effectiveness reported no changes in the CESQT results after the participation of caregivers in the educational intervention, it is necessary to consider the following aspects: a) the system used to establish the evidence of effectiveness of this type of interventions; b) the duration and characteristics of the educational intervention; and c) the inclusion of aspects related with the years of experience as a caregiver and the duration of the employment relationship, which are factors related to burnout levels in this type of intervention. This finding does not dismiss the use of educational interventions. On the contrary, it becomes necessary to further improve and promote them to contribute to the important role played by caregivers of institutionalized elderly adults, which is a growing age group.

Additionally, this study is a contribution that shows how BOS is a situation experienced by caregivers of institutionalized older adults, however, this research fails to collect from a qualitative perspective the scope of the implemented educational process; therefore, it is suggested for future studies to use a mixed method to identify effectiveness.

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